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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,165	05/18/2006	Lilin Li	97501	8058

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EXAMINER	
SARWAR, BABAR	
ART UNIT	**PAPER NUMBER**
2617	

MAIL DATE	DELIVERY MODE
12/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/580,165	**Applicant(s)** LI ET AL.	
	Examiner BABAR SARWAR	**Art Unit** 2617	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 30 November 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1-26*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617

/BABAR SARWAR/
Examiner, Art Unit 2617

Continuation of 11. does NOT place the application in condition for allowance because: The applicant argued about features wherein "when transmitting forward signals, different beams are made to have different time delays in the base band system so that they are not coherent with one another even when different beams carry same information"; signals of each fixed beam are reflected to sectors of base band chips" the applied art, Hopp in view Frank, reads as follows;

Frank is relied upon for the claimed limitations "when transmitting forward signals, different beams are made to have different time delays in the base band system so that they are not coherent with one another even when different beams carry same information" and "signals of each fixed beam are reflected to sectors of base band chips" Frank clearly discloses a CDMA CDMA2000, and WCDMA systems in which the reduction of the amount of the interference on forward link is performed. The system uses time or frequency offset on the signals input to an antenna to minimize interference in the regions of beam overlap. Additionally, polarization diversity can be introduced using Butler Matrices in conjunction with array elements to enhance the interference reduction. Frank's invention describes a manner in which to enhance the signal to interference ratio in the regions of beam overlap. His invention describes a system which implements a switched beam architecture to minimize nulls in the beam overlap region without requiring end-to-end calibration of the radio frequency transmit and receive and circuitry between the baseband transmit and receive processing and the antennas. Frank clearly discloses that the invention focuses upon CDMA applications, including CDMA2000 and WCDMA. Frank further discloses that commercial CDMA systems have been deployed, which operate at frequencies between 800 MHz and 1 GHz and between 1.8 GHz and 2 GHz. For the system illustrated in FIG. 5, the frequency offsets might typically be in the range of 10 Hz to 100 Hz. The typical time offsets, for the system illustrated in FIG. 4, will be in the range of 1 to 10 chips. For CDMA systems such as IS-95 and CDMA2000 1.times., the chip rate of the system is 1.2288 megachips per second, and thus a chip corresponds to 81.38 microseconds. The described technology was illustrated with 3 sectors and 4 beams per sector, which is typical. It will be understood by those of average skill in the art that this technique applies for fewer or more sectors as well as fewer or more beams per sector. For example, the same techniques can also be applied for 2, 3, 5, 6, or more beams per sector as well as to cells with 1, 2, 4, or more sectors. Thus Frank shows the claimed limitations.

Further, the applicant argued about features wherein "The device for realizing beam-forming in CDMA system comprises a digital fixed beam-forming network." Hopp's FIG. 2 in particular; discloses a wireless communication system 30. Wireless communication system 30 is a digitally adaptive beamforming antenna system having multiple M.times.N active antenna arrays 32 supported on a tower, such as on the tower top 22, which are oriented about the tower top 22 to provide the desired beam sectors for a defined cell. As shown in FIG. 7, each active antenna array 32 comprises an array of antenna elements 34 which are arranged generally in a desired pattern, such as a plurality of N vertical columns or sub-arrays 36 (designated 1-N) with M antenna elements 34 per column (designated 1-M). The M.times.N array 32 of antenna elements 34 may be formed by suitable techniques, such as by providing strip line elements or patch elements on a suitable substrate and ground plane, for example. Of course, other configurations of the array 32 are possible as well without departing from the spirit and scope of the present invention. The array of antenna elements 34 are operable to define multiple, individual beams for signals in one or more communication frequency bands. Hopp discloses as illustrated in FIG. 3, that each planar antenna array 50 incorporates a transceiver 60 operatively coupled to each vertical column or sub-array 36. Each transceiver 60 is operable to convert the digital baseband signals from a beamformer DSP 62 of the control unit 38 to RF signals for transmission by the antenna elements 34 during a "down-link". The transceivers 60 are further operable to convert RF signals received by the antenna elements 34 during an "up-link". The transceivers 60 are each coupled to the optical fiber transmission lines 42 through a multiplexer or MUX 64 and are driven by a suitable local oscillator (LO) 66. A demultiplexer or DEMUX is coupled to the beamformer DSP 62 and is further coupled to the MUX 64 through the optical fiber transmission lines 42. Generally, the transceivers 60 convert the down-link signals to a form which may be readily processed by various digital signal processing (DSP) techniques, such as channel digital signal processing, including time division techniques (TDMA) and code division techniques (CDMA). The digital signals, at that point, are in a defined digital band which is associated with the antenna signals and a communication frequency band. Thus Hopp shows the claimed limitations.